

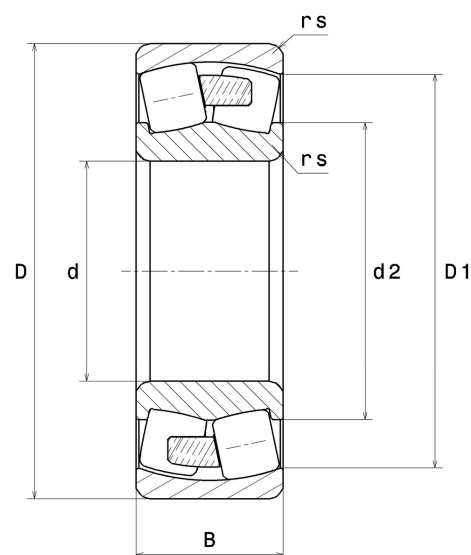
PDF technical sheet 22209EMC3



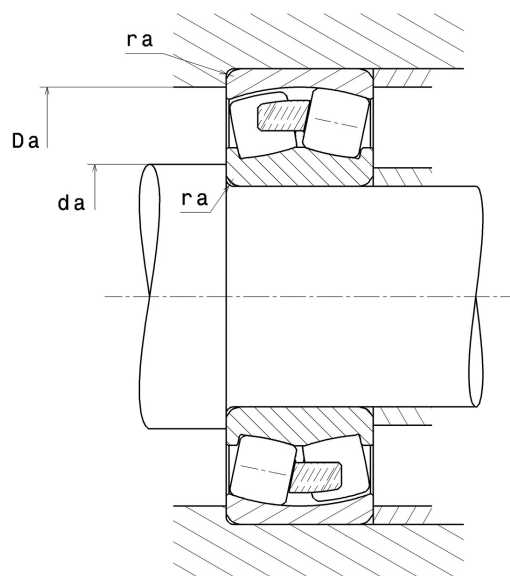
Double row spherical roller bearings

Spherical roller bearing, one-piece machined cage

Product definition	
d	1.7717 "
D	3.3465 "
B	0.9055 "
D1	2.9764 "
rs min	0.0433 "
Number of lubrication holes	
e	0.26
Y1	2.64
Y2	3.94
Y0	2.58
Radial clearance class	C3
Mass	2.10 oz
Brand	SNR



Product performance	
Dynamic load, C	116 kN
Static load, C0	106 kN
Fatigue limit load, Cu	11.80 kN
Nref	7,500 RPM
Nlim	9,800 RPM
Min operating temperature, Tmin	-40 °C
Max operating temperature, Tmax	392 °C
Characteristic cage frequency, FTF	0.42 Hz
Characteristic rolling element frequency, BSF	6.07 Hz
Characteristic outer ring frequency, BPF0	6.73 Hz
Characteristic inner ring frequency, BPF1	9.27 Hz



Abutment dimensions

da min	2.0472 "
Da max	3.0709 "
ra max	0.0394 "

Calculation factors

Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

$F_a / F_r \leq e$		$F_a / F_r > e$	
X	Y	X	Y
1	Y1	0.67	Y2

Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

X_0	Y_0
1	Y0

The values for e, Y1, Y2 and Y0 are shown in the above table .